Amendments to the claims:

The following listing of claims replaces all prior versions and listing of claims in the application.

Claim 1 (currently amended) An in situ method of reducing the concentration of a contaminate in soil to or below a target concentration that is deemed environmentally acceptable in an area in which the contaminant concentration in a surface layer of the soil exceeds the target concentration, the method comprising the steps of:

determining a requisite volume of clean soil in vertical proximity to the surface layer such that blending the soil in the surface layer with the requisite volume of clean soil results in a substantially uniform contaminant concentration in the blended soil that is at or below the target;

employing a mobile ~~blending~~ trencher apparatus modified to lift and churn soil in place to a depth of at least four feet to vertically mix the surface layer soil in the area with the requisite volume of clean soil in vertical proximity;

running the mobile blending apparatus through the area under conditions to provide sufficient time for the mobile blending apparatus to blend the mixed soils so that the contaminate concentration throughout the blended soil is substantially uniform.

Claim 2. (original) The method of claim 1, wherein at least a portion of the requisite volume of clean soil is clean soil placed on top of the surface layer.

Claim 3 (original). The method of claim 2, wherein the clean soil placed on top of the surface layer is introduced from an offsite source.

Claim 4. (cancelled)

Claim 5 (cancelled)

Claim 6. (currently amended) The method of claim 1, wherein the step of running the mobile ~~blending~~ apparatus through the area is accomplished by moving to a first location in the area, running the mobile ~~blending~~ apparatus in that location for sufficient time for the mobile ~~blending~~ apparatus to blend the mixed soils to a substantially uniform contaminate concentration in the location and then moving the mobile ~~blending~~ apparatus to another location in the contaminated area and repeating the steps.

Claim 7. (currently amended) The method of claim 1, wherein the step of running the mobile ~~blending~~ apparatus through the area is accomplished by moving the mobile trencher apparatus through the area at a ground speed sufficiently slow to provide sufficient time for the mobile ~~blending~~ apparatus to blend the mixed soils to a substantially uniform contaminate concentration.

Claim 8. (cancelled)

Claim 9 (cancelled)

Claim 10 (cancelled)

Claim 11. (currently amended) An in situ method of reducing the concentration of a contaminate in soil to or below a target concentration that is deemed environmentally acceptable in an area in which the contaminant concentration in a surface layer of the soil exceeds the target concentration, the method comprising the steps of:

mapping the area at the surface;

determining the depth of the surface layer and the average concentration of contaminant in the surface layer;

determining that there is a sufficient volume of clean soil in the area in vertical proximity to the surface layer such that blending the soil in the surface layer with the sufficient volume of clean soil results in a substantially uniform contaminant concentration at or below the target in the blended soil;

employing a mobile trencher apparatus modified to lift and churn soil in place to a depth of at least four feet to vertically mix the surface layer soil in the area with the sufficient volume of clean soil in vertical proximity;

running the trencher through the area under conditions to provide sufficient time for the trencher to blend the mixed soils, such that the mixed soils comprise a substantially uniform contaminate concentration.

12. (currently amended) An in situ method of reducing the concentration of a contaminate in soil to or below a target concentration that is deemed environmentally acceptable at a site which includes "hot spot" areas in which the contaminant concentration in a surface layer of the soil exceeds the target concentration, the method comprising the steps of:

determining and marking the location of hot spots areas;

determining that there is a sufficient volume of clean soil in vertical proximity to the surface layer such that blending the soil in the surface layer with the sufficient volume of clean soil results in a substantially uniform contaminant concentration at or below the target in the blended soil;

employing a mobile ~~blending~~ trencher apparatus modified to lift and churn soil in place to a depth of at least four feet to vertically mix the surface layer soil at a first location within the area with the sufficient volume of clean soil in vertical proximity with the contaminated soil;

continuing to run the apparatus in the first location for a time sufficient to blend the mixed soils to a substantially uniform contaminate concentration;

moving the apparatus to another location in the contaminated area and repeating the steps of mixing and blending; and

continuing the steps over the contaminated area.

13. A method of reducing concentrations of a toxic material in soil, the method comprising the steps of:

using a mobile ~~blending~~ trencher apparatus modified to lift and churn soil in place to a depth of at least four feet to mix in place a first vertical profile of the soil to a depth of at least three feet below ground surface, the first vertical profile comprising clean soil and soil with concentrations of the toxic material;

using the mobile ~~blending~~ trencher apparatus to blend the first vertical profile in place to a substantially uniform concentration of the toxic material; and

advancing the mobile ~~blending~~ trencher apparatus to a second vertical profile and repeating the steps of mixing and blending.

14. (cancelled)

15. (cancelled)